

REMARKS

I. Front Page of Office Action

The front page of the February 14, 2005 office action indicates that Claims 1-18 are pending, that claims 1-4 are rejected, and that claims 5-18 are withdrawn from consideration.

Claims 1-18 were previously replaced by claims 19-33. Claim 19 is the only independent claim. Dependent claims 22, 23, 32, and 33 are amended to correct 112 problems noted by the examiner.

II. Review and Response to Items in the Office Action

Item 1 withdraws the restriction requirement and indicates claims 19-33 are examined on the merits. The applicant appreciates the examiner's consideration in this regard.

Item 2 indicates that the IDS will only be considered and a prior art search only be conducted at a later stage of prosecution.

Item 3 requires new or corrected formal drawings and request that the applicant correspond claimed elements to drawing elements.

In response to item 3, the applicant includes herewith a description below identifying claim and drawing elements. In addition, the applicant provides formal drawings.

Item 4 rejects claims 19-33 for lack of written descriptive support in the specification under the first paragraph of 35 USC 112.

In response, the applicant notes that the following paragraphs directly address the examiner's identified claim language terms, and explains how and where each such term is supported in the specification.

The applicant agrees that the exact terms appearing in the claims are not recited in the specification. However, support for those terms as defined by the meaning of the words in the claims, and the grammatical construction of the claims, clearly exists in the specification. The examiner will hopefully appreciate that the words used in the claims and the grammatical construction of the claims provide for clear antecedent basis for each term when subsequently recited in the same claim or a subsequent dependent claim. That explains for example the recitation of "filter first... "; "filter second..." series of elements wherein the recitation of first, second, etc, distinguishes different elements from one another. The examiner should appreciate

that this degree of specificity, which is desirable in claims to provide definiteness and exact antecedent, is not necessary and therefore does not appear in the specification.

The examiner identifies the following claimed terms, questioning what element they correspond to in the specification.

1. "filter first external electrode" and "filter first conductive structure"
2. "filter second external electrode" and "filter second internal conductive structure"
3. "filter shield external electrode" and "filter shield internal conductive structure"

The examiner correctly notes that the filter structure is not specifically disclosed at specification pages 27-34, which pages describe the motor filter structure embodiments shown in Figs. 23-27.

The examiner does agree however that the band of electrodes 28/30 of filter 12 shown in Fig. 23 are electrodes. The examiner questions how these electrodes could correspond to the claimed "external electrode[s]".

The examiner also finds no support for claim 28's "second motor filter third terminal".

The examiner also finds no support for claims 30-33 recitations of multiple layers of the filter and ground structure. The examiner notes element 402 in Figs. 27A-B appears to be only one layer.

In response, please note that all of the examiner's objections relate to the claimed structure of the filter, per se, not to the structure of the overall motor filter assembly. In that regard, this application discloses its object at page 5 lines 5-7 of a component carrier adapted to receive the filters disclosed in the applicant's other applications identified at page 2 lines 16-21 to provide a combined component carrier and filter. As stated on page 6 lines 11 et seq., the concepts associated with the carrier and filter combination summarized in the summary of the invention section are generic to the subsequently disclosed embodiments.

The description of in the specification of Fig. 1 also provides a generic description of filters for all embodiments. It states in part at page 10 lines 6-11 that:

Briefly, the structure of differential and common mode filter 130 will be described. Filter 130 consists of a first electrode 136 and a second electrode 138

which are separated by and electrically isolated from a plurality of ground layers 134 and each other.

Figure 1 shows three ground layers 134, one first electrode conductive layer 136, and one second conductive layer 138 in a layer sequence 134/136/134/138/134. It also shows that a portion of each one of layers 136, 138 extends beyond the extent of the ground layers in one direction whereat each one of layers 136, 138 has two points of contact to two separate conductive lines (conductive leads 140; see second paragraph on page 10).

The first conductive layer 136 provides support for the concept defined by claim 19's "filter first conductive structure". The existence of portions of the first conductive layer 136 buried inside the ground layers 134 and portions of the first conductive layer 136 protruding from the ground layers so that the protruding portion can contact other circuit components provides support for the concept of claim 19's a filter first conductive structure "comprising a filter first external electrode and a filter first internal conductive structure". Clearly, the portion of the first conductive layer 136 buried inside the ground conductive layers 134 is an internal conductive structure of the filter. Just as clearly, the portion of the first conductive layer 136 that contacts the connecting conductive lines is an electrode and therefore supports recitation of the first external electrode.

For exactly, the same reasons, the specifications disclosed "second conductive layer 138" of filter 130 shown in Fig. 1 provides support for claim 19's "filter second external electrode" and "filter second internal conductive structure".

For claim 19's "filter shield external electrode" and "filter shield internal conductive structure" recitations, note these two elements are defined by claim 19 to be component of claim 19's "filter shield structure". In that regard, Fig. 1 shows the three ground layers 134 conductively connected to one another. Moreover, Fig. 1 shows the lowest ground layer 134 contacts two different conductive lines that in turn each contact conductive surface 142. Page 10 line 19-23 explains that the layers 134 are conductively connected to one another by, for example, solder. Thus, Fig. 1 and its description support claim 19's recitation of "filter shield structure". With respect to the adjective "shield", it is well known from the applicants other published filter invention patents and literature that a ground separating non-grounded filter components provides shielding. However, the applicant would be happy to amend this recitation

if the examiner continues to object to it, for example, by replacing "shield" with either "third conductive" or "ground".

In view of the foregoing, the applicant submits that claim 19 is clearly supported by the specification. Since the examiner's 112 first paragraph rejections of the remaining claims are based upon the examiner's presumption that recitation in claim 19 lacked support, the 112 rejections of those other claims should also be withdrawn.

Please note however that, since this application incorporates by reference the applicant's other applications containing a more detailed description of the filter structures, if the examiner maintains this rejection, the applicant will be forced to expressly incorporate some of that other material into this application in response to the objections. The applicant believes such a burden is not necessary since both this application and the publicly available versions of the applicant's incorporated by reference documents clearly define the structure of the claimed filters.

Regarding claim 28's recitation of a third terminal connecting to the motor housing, the examiner should note page 30 lines 18-24 description of Fig. 5 disclose that structure. However, description of the Fig. 24 embodiment also contains that disclosure by showing how the ground electrode of the filter connects in turn to conductive portion of the carrier and then to the conductive housing.

In response to the examiner's finding of no support for claims 30-33 recitations of multiple layers of the filter and ground structure, as noted above Fig. 1 shows 3 layers forming the filter's ground structure. The specification does not explicitly show multiple layers for the non-ground structures of the filter. However, such structure is well known in the art based upon the applicant's prior published patents and other publications, and the concept of multiple layers forming each one of the three conductive structure of the filter would have been understood by one of ordinary skill in the art reading the specification because of those prior publications.

Item 5 rejects claims 19-33 as indefinite under the second paragraph of 35 USC 112 for substantially the same reasons as the rejections under the first paragraph; the examiner does not understand how each claimed element corresponds to the specification and therefore does not understand the meaning and scope of the claims.

In response, for the reasons discussed for the rejection for lack of written descriptive support, the claims are not indefinite.

Item 5 also rejects claims 22 and 23 for improper dependency.

In response, the applicant amends claims 22 and 23 to provide proper dependency.

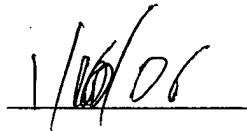
Item 5 also rejects claims 32 and 33 for lack of antecedent basis for "said filter ground internal conductive structure".

In response, the applicant amends claims 32 and 33 to provide proper antecedent basis.

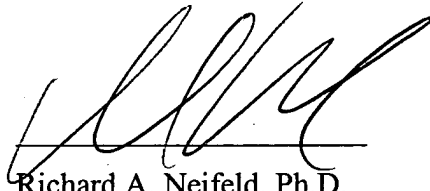
III. Closure

This application should now be in condition for allowance. Should the examiner have any questions, he is urged to contact the undersigned at 703-415-0012.

Respectfully Submitted,

A handwritten signature in black ink, appearing to be "1/10/06", written over a horizontal line.

Date

A handwritten signature in black ink, appearing to be "Richard A. Neifeld", written over a horizontal line.

Richard A. Neifeld, Ph.D.
Registration No. 35,299
Attorney of Record

RAN

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